

Claims

1. Process for manufacturing a flexible packaging material from a single or multi-layer film or film-type laminate (7) containing a sealing layer (14) deposited on at least one free surface of the film or film-type laminate (7),
5 characterised in that,

the sealing layer (14) is deposited locally, on the areas to be sealed, and
10 the local deposition is performed using an electrostatic coating process in which coating particles are electrostatically charged and transferred to the film surface to be coated using transfer means by applying an electric field, and melted to give a coating film in the form of a coating layer and subsequently solidified.
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2. Process according to claim 1, characterised in that the sealing layer is deposited on the film or film-type laminate using a process employing EMB technology (Electro-Magnetic-Brush Technology) and a two-component deposition system.
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3. Process according to one of the claims 1 to 2, characterised in that the sealing layer (14) is deposited on the film or film-type laminate by means of an electrophotographic process.
- 25 4. Process according to one of the claims 1 to 3, characterised in that the coating particles of the sealing layer (14) are in the form of dry particles, in particular powder particles.
- 30 5. Process according to claim 4, characterised in that the coating particles of the sealing layer (14) are in the form of a powder lacquer, in particular a thermoplastic powder lacquer.

6. Process according to one of the claims 1 to 5, characterised in that the sealing layer (14) is a hot-sealing layer.
7. Process according to one of the claims 1 to 6, characterised in that the coating particles of the sealing layer (14) are deposited using electronic data processing means, forming on the film or film-type laminate (7) a pattern of the areas to be sealed.
8. Process according to one of the claims 1 to 7, characterised in that the thickness of the sealing layer (14) to be deposited is monitored and/or regulated by means for electronic data processing.
9. Process according to one of the claims 1 to 8, characterised in that the deposition of the sealing layer takes place in-line and continuously at a sealing station (4) in a film production line (10).
10. Production device (10) for manufacturing a flexible packaging material from a single or multi-layer film or film-type laminate (7) in accordance with the process according to one of the claims 1 to 9, whereby the production device (10) is a film production line with a sealing station (4),
characterised in that,
the sealing station (4) is arranged as an integral module in-line in the production device (10), and the sealing station (4) contains means for localised coating of the film or film-type laminate (7) using an electrostatic coating process.
11. Device according to claim 10, characterised in that the means for electrostatic coating contains means for electrostatically charging coating particles and means for transferring the electrostatically charged coating particles on to the surface of the film to be coated.

12. Device according to one of the claims 10 to 11, characterised in that the means for transferring the electrostatically charged coating particles contain a transfer roll or a transfer belt on which the electrostatically charged coating particles are deposited by means of electrostatic forces, and means for applying an electric field in order to transfer the electrostatically charged coating particles from the transfer roll or transfer belt to the surface of the film to be coated.

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10 13. Device according to one of the claims 10 to 12, characterised in that the sealing layer station (4) has appointed to it means for electronic data processing for specific deposition and regulating localised, partial area layer deposition and/or for regulating the layer thickness.

15 14. Device according to one of the claims 10 to 13, characterised in that the sealing layer station (4) has appointed to it means for image processing for the purpose of creating a pattern of the areas to be sealed, this for the purpose of specific, localised deposition.

20 15. Device according to one of the claims 10 to 14, characterised in that the means for image processing contains means for electronic data processing (EDP) such as image processing programmes for the purpose of creating printer's copies, whereby the data for the printer's copies are in digital form and the sealing station (4) contains means for coating the film or film-type laminate using an electrophotographic process.

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16. Device according to one of the claims 10 to 15, characterised in that the sealing station (4) contains a heating unit for melting the coating.

30 17. Use of the film-type laminate (7) manufactured by the process according to claim 1, for the manufacture of sealable forms of packaging, in particular pouch-type forms of packaging such as flat pouches, flat

bottom bags, standing pouches, small bags, cushion-type packs, bags, sacks, supports for goods, boxes, base parts for push-through packs, blister packs, lid materials for containers or supports for goods.